

AMENDMENT  
March 9, 2005

JP920000257US1  
Serial No. 09/943,341

### REMARKS

Claims 2 – 7 and 9 – 14 remain in the application and stand rejected. Claims 1 and 8 have been rewritten as new claims 15 and 19, respectively. Claims 2 – 7 and 9 – 14 are amended herein. New claims 16 – 18 and 20 – 22 are included herewith. The rejection of the claims is respectfully traversed.

The specification has been amended to correct a typographical error. No new matter has been added.

Claims 1 – 14 are objected to for containing informalities. Responsive thereto claims 1 and 8 are rewritten herein as new claims 15 and 19, respectively. Also, claims 2 – 7 and 9 – 14 are amended as appropriate in line with rewritten claims 15 and 19. No new matter has been added. Reconsideration and withdrawal of the objection to claims 1 – 14 is respectfully solicited.

New claims 16 – 18 and 20 – 22 have been added and are supported in the specification on pages 4, 5 and 6. No new matter has been added. Independent consideration and allowance of new claims 16 – 18 and 20 – 22 is respectfully solicited.

Claims 1 – 14 are rejected under 35 U.S.C. §103(a) over the combination of U.S. Patent Application No. 2001/0021938 to Fein et al., U.S. Patent No. 6,766, 287 to Kupiec et al. and U.S. Patent No. 6,334,132 to Weeks. The rejection is respectfully traversed.

Essentially, it is asserted that Fein discloses the present invention at paragraphs 0028 – 0039; except that Fein does not disclose the “the correlation degree between the word and the user information” and “Fein does not explicitly disclose generating a set of sentences for a set of documents and computing the score for each sentence according to

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the position of the sentence in a section and a paragraph.” Thus it is asserted that Kupiec et al. teaches “generating a set of sentences for a set of documents and computing the score for each sentence” at Figs. 1, 2 and 5 and at col. 3, lines 1 – 17, line 59 – col. 4, line 9 and line 63 – col. 5, line 14. It is asserted that Weeks Abstract and col. 2, lines 1 – 36 describes determining “the correlation degree between the word and the user information.”

The present invention is a program product and “automatic method for generating summaries for text documents” as recited in lines 1 – 2 of claim 15, for example. A “set of sentences [is generated] for a set of documents by document discourse analysis and a set of words [is generated] by morphologic process” at lines 3 – 4. As recited in new claims 16 and 20 and described in the present application on page 4, lines 1 – 2, document discourse analysis “identifies titles, sections, lists, paragraph boundaries and sentence boundaries of the documents.” For each sentence and each word, scores are initialized and aggregated scores are computed for each at lines 5 – 12. The scores and aggregated scores are summed and the sums compared. Then, until the sums match the scores are replaced with corresponding aggregated scores and iteratively recomputed at lines 13 – 18. This was also recited in canceled claims 1 and 8 at lines 14 – 15 and 15 – 16, respectively. Once the sums match, top ranked sentences and a keyword list are output at lines 19 – 21. Claim 19 includes corresponding recitations.

Fein et al. paragraphs 0028 – 0039 is a discussion as indicated in paragraph 0028 of “a computer-implemented method for summarizing a document that are carried out by the computer. The method is described with additional reference to an example document containing a **four-sentence paragraph**, which is summarized into a two-sentence summary.” (emphasis added.) In paragraph 0040, Fein et al. provides that “the document summarizer performs during the same pass through the document a cue-phrase analysis to exploit any explicit **discourse markers** present in the text.” (emphasis added) However, “cue-phrase analysis” of Fein et al., even when it exploits explicit discourse

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markers, is not document discourse analysis. See, e.g., Fein et al., paragraphs 0040 – 0044. Further, Fein et al. shows a single pass scoring (paragraphs 0034 – 0036) and, in particular, does not show iteratively scoring words and sentences based on a difference between versions of a sum of aggregate scores.

Kupiec et al. teaches a single pass score assignment, Figs. 1 – 5. Thus, each word or sentence is assigned a single value that is used throughout. Weeks Abstract teaches calculating ranking values.

Neither Fein et al., Kupiec et al., nor Weeks teach conducting discourse analysis or iteratively refining sentence and word scores until the sum of scores remains the same as recited in claims 15, 16, 19 and 20. Accordingly, the combination of Fein et al., Kupiec et al. and Weeks does not result in the present invention, either as originally claimed or as claimed in new claims 15 – 22. Independent consideration and allowance of new claims 15 – 22 is respectfully solicited.

Further because dependent claims include all of the differences with the references as the claims from which they depend, the combination of Fein et al., Kupiec et al. and Weeks does not result in the present invention as claimed in claims 2 – 7 and 9 – 14, which depend from claims 15 and 19. Reconsideration and withdrawal of the rejection under 35 U.S.C. §103(a) of claims 2 – 7, and 9 – 14, as amended, over the combination of Fein et al., Kupiec et al. and Weeks is respectfully solicited.

The applicant has considered the other references cited but not relied upon and finds them to be no more relevant than the references relied upon for the rejection.

The applicants thank the Examiner for efforts both past and present in examining the application. Believing the Application in condition for allowance, both for the amendment to the claims and for the reasons set forth above, the applicants request that

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the Examiner consider new claims 15 – 22, reconsider and withdraw the objection to the claims, reconsider and withdraw the rejection of claims 2 – 7, and 9 – 14 under 35 U.S.C. §103(a) and allow the Application to issue.

Should the Examiner believe anything further may be required, the Examiner is requested to contact the undersigned attorney at the local telephone number listed below for a telephonic or personal interview to discuss any other changes.

Please charge any deficiencies in fees and credit any overpayment of fees to IBM Corporation Deposit Account No. 50-0510 and advise us accordingly.

Respectfully Submitted,

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(Date)

  
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